

alkylbenzyl group;

R^4 is a group formed by reacting the amine group to which R^4 is attached with a quaternizing agent to form a quaternary amine group;

R^5 is a counterion to the quaternary amine group; and

n is an integer from about 2 to 5,000.

Remarks

After amendment, claims 1-28, 30-36 and 38-58 remain pending in the present application. The claims have been amended to address the Examiner's rejections of claims 4,5, 14-28, 34 and 51-56 under 35 U.S.C. §112, second paragraph and to clearly distinguish over any possible argument that Werner somehow produces or suggests compounds according to the present invention. Support for the amendments to the claims can be found throughout the original specification and claims and in particular on page in the definition of personal care product according to the present invention. It is respectfully submitted that the instant amendment places the present application in condition for allowance. No new matter has been added by the presentation of this amendment.

The Examiner has rejected claims 1, 3-5, 7-10, 13-28, 34 and 49-56 variously under 35 U.S.C. §112, second paragraph and §103. For the reasons which are set forth below, Applicants respectfully submit that the present application is in condition for allowance.

The §112, Second Paragraph Rejection

The Examiner has rejected claims 4-5, 14-28, 34 and 51-56 under 35 U.S.C. §112, second paragraph for the reasons which are stated at the top of page 2 of the office action. In order to address the Examiner's rejection, claim 14 now defines R^1 consistent with its

definition in the original specification and claims. Claims 4, 5, 16 and 17 have had the term “fatty” deleted therefrom. Claim 34 has been amended to reflect the correct antecedent basis as it is now dependent on claim 14 (through claim 28).

It is respectfully submitted that the claims now are in full compliance with the requirements of 35 U.S.C. §112, second paragraph.

The §103 Rejection

The Examiner has rejected claims 1, 3-5, 7-10 and 13, 49 and 50 under 35 U.S.C. §103 as being unpatentable over Werner in view of Tseng or McGovern. In particular, the Examiner McGovern for disclosing a composition made by reacting a trialkanolamine with oleic acid. He then reacts this with diisocyanate. The Examiner also cites the disclosure of ricinoleic acid in claim 4 and triethanolamine in claim 11 he cites the disclosure of triethanolamine. Further, the Examiner cites Werner as disclosing isophorone diisocyanate in column 3 at line 22 and in column 11, the Examiner cites the disclosure of surfactants, preservatives and coloring agents. The Examiner indicates that the McGovern composition differs from the instant invention by not specifying his polyurethanes for use in personal care products.

The Examiner cites McGovern for disclosing that similar polyurethane cellular material can be used as personal care items and cited Tseng for disclosing similar cellular polyurethanes for use in personal care items.

From these disclosures the Examiner concludes that the present invention is unpatentable because it would have been obvious to the routineer to use the cellular polyurethane of Werner in personal care items as taught by Tseng or McGovern in order to

expand the market for Werner's formulation. Applicants respectfully traverse the Examiner's rejection for the reasons which are detailed herein.

The present invention (as set forth in claim 1) is directed to a polymeric composition for use in cosmetic or toiletry formulations (i.e., compositions) which is obtained from the reaction of a trialkanolamine with a C_2 to C_{25} acid optionally having at least one free hydroxyl group or a triglyceride comprising C_{10} to C_{25} fatty acids optionally having at least one free hydroxyl group under conditions to produce a mono-, di- or trialkanolamine fatty acid ester, which is subsequently reacted with a diisocyanate compound to form a polymeric composition as claimed. The obtained polymeric composition, a polyurethane trialkanolamine fatty acid ester, may be safely incorporated into cosmetic or toiletry products, which have been carefully defined in the specification at page 6 to be a composition which is used on or in contact with the hair, skin and/or nails. The present compositions are therefore biocompatible. A large number of exemplary cosmetic and toiletry formulations are described on page 6 of the specification. It is noted here that one of ordinary skill would never construe a release agent for a polymerization reaction to be included in a cosmetic or toiletry product, because such a concept is actually *inapposite* (i.e., irrelevant) to the production of cosmetic and toiletry products. Moreover, the art does not suggest such a result for the reasons which are described in further detail hereinbelow.

Werner cannot cogently be cited as rendering the present invention obvious, especially in light of the amended claims. The invention of Werner is characterized in column 2, lines 14-42 as being directed to the use of *internal release agents* for injection molding applications with improved mold release characteristics. Although Werner does disclose certain fatty ester amides which may be obtained from the reaction product of an alkanolamine with a fatty acid, these fatty acid esters are not incorporated into polyurethane compounds which can even arguably be said to be the polymeric compositions according to the present invention which are

found to be useful when incorporated into toiletry or cosmetic products that are to be used in contact with an animal, including a human body. Instead, Werner describes a number of reactants which are included in final polymeric compositions primarily used for producing polyurethane-polyurea molded plastic parts, compositions which are *completely incompatible* with the use of cosmetic or toiletry products on the human body. The prior art is therefore favored for use in producing *injection molded polyurethanes*. Indeed, a review of the components of the Werner final composition shows that in addition to diisocyanate, further reactants include diamines, diazo compounds, ethylene oxide and other monomeric components which are *inconsistent and incompatible* with producing a personal care product. Thus, Werner does not and cannot produce the presently claimed compositions, because such use is incompatible with the disclosure of Werner. It is noted that nowhere is there disclosure or a suggestion that Werner produces or suggests components to be incorporated into cosmetic or toiletry compositions which are biocompatible for use on the human body. Moreover, in contrast to the present invention wherein the reaction product of the trialkanolamine and fatty acid is a major component of the final composition, the release agents of Werner (which are further polymerized with diisocyanate, in addition to numerous other polyurethane forming monomers) represent only a minor component of the final polymerization product. Moreover, the final polymeric products of Werner are injection molded polyurethane compositions containing a larger number of components which render the Werner compositions *completely incompatible* with use in cosmetic or toiletry compositions. Based upon the foregoing discussion and the clear distinction between compositions according to the present invention which are used in personal care products and the compositions of Werner which are injection molded polyurethanes, it cannot be said that Werner renders the present invention obvious. It is respectfully submitted that it is simply not cogent to suggest that one of ordinary skill would “cherry pick” out only limited components disclosed in Werner which are used as release agents and use them for a completely unrelated application and then fashion the present compositions for use in cosmetic or toiletry products, especially

when personal care products are not even disclosed or mentioned by Werner. In sum, Werner is an insufficient reference and does not disclose or even obliquely suggest the present compositions.

The Examiner cites McGovern and Tseng to cure the deficiencies of Werner in failing to render the present invention obvious. McGovern discloses high resilience polyurethane molded foams with improved static fatigue properties. Not only does McGovern *not* disclose compositions which are at least similar to the present invention, McGovern does not disclose cosmetic or toiletry formulations as those compositions are understood in the art. Instead, McGovern discloses compositions which can be used to make polyurethane foams-compositions which wouldn't even work in cosmetics or toiletry compositions according to the present invention. It is absurd to suggest that the polyurethane foam compositions of McGovern, which contain numerous anti-inflammatory components which are incompatible with cosmetics and toiletries would somehow find their way into the cosmetic or toiletry compositions of the present invention. As noted, these compositions are completely incompatible with their use in cosmetics and toiletries. It is respectfully submitted that McGovern is absolutely irrelevant to the present invention and clearly does not cure the defects of Werner in failing to disclose or suggest the present invention. There is no way to combine Werner and McGovern to produce the present invention.

Nor does Tseng somehow cure the defects of Werner and/or McGovern. Tseng, like McGovern discloses a polymeric foam which can be used to make a finger-manipulated article containing a foam gripping surface. The disclosure of Tseng has absolutely nothing to do with the present invention. In addition to not disclosing compositions which are related to the present compositions other than that they contain polyurethanes, Tseng does not disclose in any way the use of any cosmetic or toiletry compositions as those term are defined in the art and in the present application. To the extent that Tseng discloses polyurethane foams, these

are disclosed as being polyisocyanate capped polyoxyethylene polyols which produce foams, compositions which are clearly distinguishable from the compositions according to the present invention. These reactive polyisocyanate capped polyoxyethylene polyols are then mixed with latex compositions as well as other components such as fillers, and other components to produce foam compositions. In the first instance, one of ordinary skill would not think to include a release agent in those compositions because that person would realize that the two polymer phases which are produced might separate from each other- making the intended handle of Tseng much more difficult to produce. Even if one of ordinary skill were to include a release agent of Werner in the foams of Tseng, the result would not be the present compounds, but rather a polyisocyanate/polyoxyethylene polyol latex foam containing filler and a sprinkling of a release agent therein. Whatever compositions would be produced under such conditions would clearly not be those of the present invention. Those compositions are not the present compositions and are incompatible for inclusion in cosmetic and toiletry formulations. Applicants fail to see how Tseng somehow renders Werner and/or McGovern more relevant. If anything, Tseng teaches away from including the release agents of Werner in a polyurethane foam. Moreover, the resulting product, even assuming the desire to include a release agent, would not produce the present compositions or even anything remotely similar to the compositions which are additives when used in cosmetics and toiletry formulations. .

It is quite clear that none of the cited references discloses or even remotely suggests polymeric compositions according to the present invention which are useful for their chemical characteristics which are included accordingly in cosmetics and toiletries. Nothing in the cited art motivates one of ordinary skill to produce the present compounds which find utility in those products. The present compositions are stand- alone polymeric compositions which are not polymerized into a foam, a tire or other three dimensional structural object as described by the art or record, but instead are incorporated into cosmetic compositions and toiletries for their unique chemical characteristics- characteristics which are not known and could not have

been known from the teachings of the cited art. A combination of the teachings of the references suggests nothing more than the incorporation of a release agent into polymeric compositions which *are clearly not the instantly claimed compositions, nor could one produce the present compositions from the cited art.* Consequently, it is respectfully submitted that the instantly claimed compositions are clearly patentable over the cited art.

For the above reasons, Applicants respectfully assert that the claims set forth in the amendment to the application of the present invention are now in compliance with 35 U.S.C. Applicants respectfully submit that the present application is now in condition for allowance and such action is earnestly solicited.

Applicants have neither cancelled nor added any claims. No fee is therefore due for the presentation of this amendment. Please charge any fee due to Deposit Account No. 04-0838. Should the Examiner wish to discuss the allowability of the instant claims, the undersigned attorney may be reached at the disclosed number.

Respectfully submitted,

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